

6-25-4

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Docket No.: 20046/0200960-US0

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Meinrad Schienle, et al.

Serial No.:

10/803,175

Filed:

March 16, 2004

For:

FLUORESCENCE BIOSENSOR CHIP AND FLUORESCENCE

**BIOSENSOR CHIP ARRANGEMENT** 

June 23, 2004

## INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

This Information Disclosure Statement is submitted in accordance with 37 C.F.R. 1.97, 1.98, and it is requested that the information set forth in this statement and in the listed documents be considered during the pendency of the above-identified application, and any other application relying on the filing date of the above-identified application or cross-referencing it as a related application.

- 1. This IDS should be considered, in accordance with 37 C.F.R. 1.97, as it is filed:(Check one of the boxes A-D)
  - []A. Within three months of the filing date of the above-identified national application or within three months of the entry into the national stage of the above-identified international application.
  - [X] B. before the mailing date of a first office action on the merits, or a first office action after filing a request for continued examination.
  - [] C. after (A) and (B) above, but before the mailing date of a final rejection, a notice of allowance, or any other action that closes prosecution, and Applicants have made

the necessary statement in box "i" below or paid the necessary fee in box "ii" below.

(check one of the boxes "i" and "ii" below:)

- [] i. Counsel states that, upon information and belief, each item of information listed herein was either (a) cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS; or (b) was not cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of undersigned after making reasonable inquiry, was not known to any individual designated in 1.56(c) more than three months prior to the filing of this IDS.
- [] ii. A check for the fee set forth in 1. 17(p), presently believed to be \$180, is enclosed.
- [] D. after (A), (B) and (C) above, but before payment of the issue fee: Counsel states that, upon information and belief, each item of information listed herein was either (i) cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the IDS; or (ii) was not cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the undersigned after making reasonable inquiry, was not known to any individual designated in 1.56(c) more than three months prior to the filing of this IDS.
  - [] i. A check for the fee set forth in 1.17 (p), presently believed to be \$180, is enclosed.
- 2. In accordance with 37 C.F.R. 1.98, this IDS includes a list (e.g., form PTO/SB/08) of all patents, publications, or other information submitted for consideration by the office, either incorporated into this IDS or as an attachment hereto. A copy of each document listed is attached, except as explained below.

(check boxes A, B and/or C and fill in blanks, if appropriate.).

| [] A. | Pursuant to the Notice issued   | by the United States Patent and Trademark   |
|-------|---------------------------------|---|
|       | Office dated July 11, 2003      | waiving the requirements of 37 C.F.R. §     |
|       | 1.98(a)(2)(i), a copy/copies of | of the United States Patent on PTO/SB08     |
|       | is/are not being submitted.     |   |
| ΠB.   | Document(s)                     | is (are) deemed substantially cumulative to |

- [] B. Document(s) \_\_\_\_\_\_ is (are) deemed substantially cumulative to document(s) \_\_\_\_\_, and, in accordance with 1.98(c), only a copy of each of the latter documents is enclosed.
- [] C. Certain documents were previously cited by or submitted to the Office in the following prior applications, which are relied upon under 35 U.S.C. 120:

[SERIAL NO. & FILING DATE].

Applicant identifies these documents by attaching hereto copies of the forms PTO-892 and PTO/SB08 from the files of the prior application(s) or a fresh PTO/SB/08 listing these documents, and request that they be considered and made of record in accordance with 1.98(d). Per 37 CFR 1.98(d), copies of these documents need not be filed in this application.

[X] 3. Documents BD-BK are not in the English language. In accordance with 1.98(c), Applicant states:

| [X]       | An English abstract of each document (or of the pertinent portions thereof), or a copy of each corresponding English-language patent or application is enclosed. |
|-----------|--|
| []        | A concise explanation of the relevance of document(s) is found   |
|           | in the attached search report (see MPEP § 609 A(3)x).  |
| []        | A concise explanation of the relevance of document(s) is set   |
|           | forth as follows: [Insert concise explanation of relevance]  |
| []        | A concise explanation of the relevance of document(s) can be found on page(s) of the specification.  |
| <b>63</b> | · · · · · · · · · · · · · · · · · ·  |
|           | A concise explanation of document(s) can be found on the attached sheet.   |

- [] 4. No explanation of relevance is necessary for documents in the English language (see MPEP § 609 A(3)).
- [X] 5. Other information being provided for the examiner's consideration follows: An International Search Report, dated February 21, 2003, which issued during the prosecution of International Application No. PCT/DE02/02954.
- 6. In accordance with 37 C.F.R. 1.97(g) and (h), the filing of this IDS should not be construed as a representation that a search has been made or that information cited is, or is considered to be, material to patentability as defined in §1.56 (b), or that any cited document listed or attached is (or constitutes) prior art. Unless other-wise indicated, the date of publication indicated for an item is taken from the face of the item and Applicant reserves the right to prove that the date of publication is in fact different.

## CROSS REFERENCE UNDER 37 C.F.R. §1.78 TO RELATED APPLICATIONS

| Pursuant to 37 C.F.R. § 1.78, Applica         | ant notes that the above-identified patent application |
|---|--|
| may be related to the following U.S. Patent A | Applications:  |
| (1) U.S. Patent Application Serial No         | , filed  |
|   |  |
| Early and favorable consideration is e        | carnestly solicited.                                   |
|   | Respectfully submitted,                                |
| June 23, 2004                                 | FLYN BARRISM<br>(53, 970)                              |

Registration No. 38,395 Attorney for Applicants

DARBY & DARBY P.C. 805 Third Avenue New York, N.Y. 10022 (212) 527-7700

Application No. (if known): 10/803,175

Attorney Docket No.: 20046/0200960-US0

## Certificate of Express Mailing Under 37 CFR 1.10

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PTO/SB/08a/b (08-03)

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| Sul   | bstitute for form 1449A/B/PT | ·o           |              | Complete if Known      |                   |
|-------|------------------------------|--------------|--------------|------------------------|-------------------|
|       |                              |              |              | Application Number     | 10/803,175        |
| 11    | NFORMATION                   | 1 DI         | SCLOSURE     | Filing Date            | March 16, 2004    |
| S     | TATEMENT I                   | BY $\lambda$ | APPLICANT    | First Named Inventor   | Meinrad Schienle  |
|       |                              |              |              | Art Unit               | N/A               |
|       | (Use as many sh              | eets as      | s necessary) | Examiner Name          | Not Yet Assigned  |
| Sheet | 1                            | of           | 2            | Attorney Docket Number | 20046/0200960-US0 |

|           | U.S. PATENT DOCUMENTS |   |                  |                             |   |  |  |
|-----------|-----------------------|---|------------------|-----------------------------|---|--|--|
| Examiner  | Cite                  | Document Number                           | Publication Date | Name of Patentee or         | Pages, Columns, Lines, Where  |  |  |
| Initials* | No.1                  | Number-Kind Code <sup>2</sup> ( if known) | MM-DD-YYYY       | Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear |  |  |
|           | AA**                  | US-5,648,653-B1                           | 07-15-1997       | Sakamoto et al.             |   |  |  |
|           | AB**                  | US-5,832,165-B1                           | 11-03-1998       | Reichert et al.             |   |  |  |
|           | AC**                  | US-5,874,047-B1                           | 02-23-1999       | Schoning et al.             |   |  |  |

<sup>\*\*</sup> Pursuant to the Notice issued by the United States Patent and Trademark Office dated July 11, 2003 waiving the requirements of 37 C.F.R. § 1.98(a)(2)(i), a copy/copies of the United States Patent on PTO/SB08 is/are not being submitted.

|           |      | FOREI   | GN PATENT          | DOCUMENTS  |   |    |
|-----------|------|---|--------------------|--|---|----|
| Examiner  | Cite | Foreign Patent Document   | Publication        | Name of Patentee or  | Pages, Columns, Lines,                                |    |
| Initials* | No.1 | Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known) | Date<br>MM-DD-YYYY | Applicant of Cited Document  | Where Relevant Passages<br>or Relevant Figures Appear | T⁵ |
|           | ВА   | WO-99/27140-A1  | 06-03-1999         | Lockheed Martin Energy<br>Research Corporation                       |   | Γ  |
|           | ВВ   | WO-99/38612-A1  | 08-05-1999         | Nanogen, Inc.  |   | ┢╾ |
|           | ВС   | WO-00/12759-A1  | 03-09-2000         | Alpha Innotech Corporation   |   | Г  |
|           | BD   | WO-01/03833-A1  | 01-18-2001         | Commisariat A L'energie<br>Atomique                                  |   |    |
|           | BE   | WO-02/090573-A3   | 11-14-2002         | Infineon Technologies AG   |   |    |
|           | BF   | FR-2 747 785-A1   | 10-24-1997         | Motorola Inc. Societe De Droit<br>De L'ete Du Delaware               |   |    |
|           | BG   | DE-100 38 080-A1  | 02-21-2002         | Giesing  |   | Г  |
|           | ВН   | DE-197 31 479-A1  | 08-06-1998         | Hewlett-Packard Co.  |   |    |
|           | ВІ   | DE-199 40 751-A1  | 03-02-2000         | FeBiT Ferrarius Biotechnology GmbH                                   |   |    |
|           | BJ   | DE-199 40 752-A1  | 04-27-2000         | FeBiT Ferrarius Biotechnology<br>GmbH                                |   |    |
|           | ВК   | DE-199 47 616-A1  | 05-03-2001         | Fraunhofer-Gesellschaft zur Forderung der angewandten Forschung e.V. |   |    |

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. \*\*CITE NO.: Those patent(s) or publication(s) which are marked with an double asterisk (\*\*) next to the Cite No. are not supplied because they were previously cited by or submitted to the Office in a prior application relied upon in this application for an earlier filing date under 35 U.S.C. 120. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

|                      | NON PATENT LITERATURE DOCUMENTS |   |    |  |  |  |  |
|----------------------|---------------------------------|---|----|--|--|--|--|
| Examiner<br>Initials | Cite<br>No.1                    | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T² |  |  |  |  |
|                      | CA                              | Kong, S.H., et al., "CMOS compatible optical sensors with thin film interference filters: fabrication and characterization", Workshop on Semiconductor Advances on Future Electronics SAFE'98, pp. 291-294.   |    |  |  |  |  |

| Examiner  | Date       |  |
|-----------|------------|--|
| Signature | Considered |  |

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| Sub   | Substitute for form 1449A/B/PTO |          |            | Complete if Known      |                   |
|-------|---------------------------------|----------|------------|------------------------|-------------------|
|       |                                 |          |            | Application Number     | 10/803,175        |
| IN    | <b>NFORMATIO</b>                | N DI     | SCLOSURE   | Filing Date            | March 16, 2004    |
| S     | TATEMENT                        | BY A     | APPLICANT  | First Named Inventor   | Meinrad Schienle  |
|       |                                 |          |            | Art Unit               | N/A               |
|       | (Use as many s                  | heets as | necessary) | Examiner Name          | Not Yet Assigned  |
| Sheet | 2                               | of       | 2          | Attorney Docket Number | 20046/0200960-US0 |

| СВ | Vo-Dinh, T., "Development of a DNA biochip: principle and applications", Sensors and Actuators B, Vol. 51, no. 1-3, August 31, 1998, pp. 52-59.             |  |  |  |  |
|----|---|--|--|--|--|
| CC | Piunno, et al., "Fiber-Optic DNA Sensor for Fluorometric Nucleic Acid Determination", Analytical Chemistry, Vol. 67, no. 15, August 1, 1995, pp. 2635-2643. |  |  |  |  |

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

| Examiner  | Deta       |
|-----------|------------|
|           | Date       |
| Signature | Considered |
|           |            |

<sup>&#</sup>x27;Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.